**Homework 96 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Changing Dimensions Affects SA/Volume Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pr: \_\_\_\_\_\_\_\_\_\_**

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| 1) The radius of a sphere has been tripled. By how many times has the surface area been increased? | 2) |
| 3) The length of a cube has increased by 2 times. What is the ratio of the original surface area to the new surface area? |
| 4) A large pizza has a diameter of 20 in. A small pizza has a diameter of 10 in. How many times greater is the area of the large pizza than the area of the small pizza? | 5) The length of a rectangle is 10 inches and its width is 8 inches. If both the length and width are cut in half, what is the ratio of the area of the original rectangle to the area of the new rectangle? |
| 6) | 7) A pyramid has a height of 10 ft and a square base with edge length of 9 ft.  a. Find the volume of the pyramid.  b. By how many times does the volume increase if the height is doubled?  c. By how many times does the volume increase if the height stays the same and the edge length is doubled? |
| 8) |